Author index

Abelt, C.J. 289 Acquavella, M.F. 289 Adachi, K. 257, 273 Aiba, S.-i. 373 Alais, J. 79 Alton, G.R. C7 Ando, T. C1 André, C. 31 Aoki, N. 151, 165 Atzori, M. 1 Aulabaugh, A.E. 201

Ballou, C.E. 63 BeMiller, J.N. 197 Biviano, F. 1 Böcker, T. 245 Boniface, C. 15 Brisson, J.-R. 299

Cabell, M.F. 289 Chang, H.-S. 151, 165 Crouch, R.C. 201 Cuny, E. 319

David, S. 79 Dohi, Y. 179 Donoso, D.C.W.J. 289 Donoso, M.T.U. 191 Dowd, M.K. 223

Farrant, R.D. 201 Feist, H. 319 Fernández-Mayoralas, A. 185 Forrest, S.M. 289 French, A.D. 223 Fronczek, F.R. 213 Fuhrhop, J.-H. 31 Furuhata, K.-i. 151, 165

Hara, K. C11 Hasegawa, A. 257, 273, C1 Helander, A. 299 Hodosi, G. 327 Horie, R. C11 Hudson, B.D. 201

Irie, K. 117 Ito, Y. 117 Iwasawa, H. 117

Jiang, C. C7

Kameyama, A. C1 Kashem, M.A. C7 Kato, T. 117 Kenne, L. 299 Kiso, M. 257, 273, C1 Kiyohara, H. 361 Kobayashi, Y. 89 Koganei, K. 165 Koyama, Y. 89 Kroon-Batenburg, L.M.J. 41 Kroon, J. 41 Kuszmann, J. 327 Kvam, B.J. 1

Larice, J.-L. 15 Leeflang, B.R. 41 Lindhorst, T.K. 245 Lindon, J.C. 201 Ljevaković, D. 107 Luger, P. 31

Martin, G.E. 201 Martín-Lomas, M. 185 Martínez, M.B. 191 Mata, F.Z. 191 Metzger, J. 15 Murello, M.-H. 15

Nagai, T. 361 Nakano, K. C11 Nieto-Sampedro, M. 185

Ohgi, T. 89 Okuno, S. 117 Oscarson, S. 299 Paoletti, S. 1 Párkányi, C. 15 Pérez, J.A.G. 191 Peseke, K. 319 Peters, T. 299 Petruš, L. 197 Podányi, B. 327

Ragouzeos, A. 201 Reilly, P.J. 223 Rendleman, Jr., J.A. 343

Sakamoto, M. 151, 165 Santos-Benito, F.F. 185 Shibukawa, M. 117 Shockcor, J.P. 201 Siouffi, A. 15 Smith, S.H. 289 Spitzer, T.D. 201 Sugawara, T. 117 Svenson, S. 31

Tabata, S. 179 Taneichi, N. 89 Tegge, W. 63 Thiem, J. 245 Toffanin, R. 1 Tomašić, J. 107 Tomić, S. 107 Tsuchiya, T. 89

Van Eijck, B.P. 41 Vargas, D. 213 Venot, A.P. C7 Vernin, G. 15 Vill, V. 245 Vliegenthart, J.F.G. 41 Voll, R.J. 213

Watanabe, H.K. 117

Yamada, H. 361 Yoshida, M. 257, 273 Yoshikawa, T. 117 Younathan, E.S. 213

Zeng, J. 223 Zhao, Q.-C. 361

Subject index

- N-Acetylated chitosans as substrates, a convenient assay for chitinase that uses partially, 373
- N-Acetylneuraminic acid, use as a temporary blocking group in a combined chemical-enzymic oligosaccharide synthesis, C7
- N-Acetylneuraminic acids, deoxy, incorporation into ganglioside GM₃ analogs by synthesis, 273
- N-Acetylneuraminic acids, deoxy, synthesis of methyl thioglycosides of, for use as glycosyl donors. 257
- Affinitiy ligands from p-myo-inositol 1,4,5-triphosphate, synthesis of, 63 Amadori intermediates. GC-MS/SPECMA data bank identification of volatile aroma compounds, kinetics and thermal degradation of the fructose-methionine, 15
- Amino acid, C-glycosyl analogue of O-(β -D-xylopyranosyl)serine, synthesis of, 197
- 6-Amino-6-deoxy-p-gluconic acid, preparation of derivatives that are precursors for the synthesis of polyamides, 191
- 3-Amino-3,6-dideoxy-D-mannose (mycosamine), a precursor to the β -pyranosides of, 79
- Assay for chitinase that uses partially Nacetylated chitosans as substrates, 373
- Assay for oligo-(1 → 4) → (1 → 4)-glucantransferase activity in the glycogen debranching enzyme system by using HPLC with a pulsed amperometric detector. 179
- Branched-chain sugars with push-pull functionality, syntheses of, 319
- Bromination of cellulose with N-bromosuccinimide-triphenylphosphine under homogeneous conditions in lithium bromideorganic solvent systems, 165
- Bromosuccinimide-triphenylphosphine under homogeneous conditions in lithium bromide-organic solvent systems, bromination of cellulose with N-, 165
- Carbohydrate-protein conjugates, synthesis of ω-(methoxycarbonyl)alkyl and 9-(methoxy-

- carbonyl)-3,6-dioxanonyl glycosides for use in preparation of, 117
- Cellulose with N-bromosuccinimide-triphenylphosphine under homogeneous conditions in lithium bromide-organic solvent systems, bromination of, 165
- Cellulose with N-chlorosuccinimide-triphenylphosphine under homogeneous conditions in lithium chloride-N,N-dimethylacetamide, 151
- Cervus nippon Temminck, structure of the complement-activating proteoglycan from the pilose antler of, 361
- Chitinase, a convenient assay that uses partially N-acetylated chitosans as substrates, 373
- Chlorination of cellulose with N-chlorosuccinimide-triphenylphosphine under homogeneous conditions in lithium chloride-N,N-dimethylacetamide, 151
- Chlorosuccinimide-triphenylphosphine under homogeneous conditions in lithium chloride-N,N-dimethylacetamide, chlorination of cellulose with N-. 151
- Complement-activating proteoglycan from the pilose antler of *Cervus nippon* Temminck, structure of, 361
- Complexation with C₁₂ cyclic compounds, enhanced production of cyclomalto-octaose through selective, 343
- Conformational analysis of the anomeric forms of kojibiose, nigerose, and maltose using MM3, 223
- Conformational behaviour of the cardiac glycoside digoxin as indicated by NMR spectroscopy and molecular dynamics calculations, 201
- Crystal packing of N-(n-octyl)-D-gulonamide containing tail-to-tail sheets compared to its gluconamide diastereomer showing head-totail arrangement, 31
- Cyclomaltoheptaose, regioselectivity of the insertion reactions of some aromatic diazo compound complexes with, 289
- Cyclomaltooctoase through selective complexation with C₁₂ cyclic compounds, enhanced production of, 343

2,3-Dideoxy-2,3-(N-tosylepimino)-α-D-allopyranosides, and synthesis of 3'-deoxy-3'-fluorokanamycin B and 3',4'-dideoxy-3'-fluorokanamycin B, study on fluorination of, 89

Digoxin, conformational behaviour as indicated by NMR spectroscopy and molecular dynamics calculations, 201

Enhanced production of cyclomaltooctaose through selective complexation with C₁₂ cyclic compounds, 343

Esterase from rabbit serum, partially pivaloylated D-glucopyranose substrates for the, 107

Fluorination of 2,3-dideoxy-2,3-(*N*-tosylepimino)-α-D-allopyranosides, and synthesis of 3'-deoxy-3'-fluorokanamycin B and 3',4'-dideoxy-3'-fluorokanamycin B, study on, 89

Fluorokanamycin B, study on fluorination of 2,3-dideoxy-2,3-(N-tosylepimino)-α-D-allopyranosides, and synthesis of 3'-deoxy-3'-fluorokanamycin B and 3',4'-dideoxy-3'-, 89

Fructose-methionine Amadori intermediates. GC-MS/SPECMA data bank identification of volatile aroma compounds, kinetics and thermal degradation of the, 15

Furanose conformer, a locked ⁴T₃. Synthesis and X-ray crystal and solution structures of 2,5-anhydro-3,4-O-(1,2-ethanediyl)-D-mannitol, 213

Ganglioside GM₃ analogs containing a deoxy-N-acetylneuraminic acid residue, synthesis of a series of, 273

Glucantransferase activity in the glycogen debranching enzyme system, assay for oligo-(1 → 4) → (1 → 4)-, by using HPLC with a pulsed amperometric detector, 179

Gluconamide diastereomer showing head-to-tail arrangement, the crystal packing of N-(n-octyl)-p-gulonamide containing tail-to-tail sheets compared to its, 31

D-Gluconic acid, preparation of derivatives of 6-amino-6-deoxy-, as precursors for the synthesis of polyamides, 191

D-Glucopyranoses, syntheses of partially pivaloylated, 107

Glycogen debranching enzyme system, assay for oligo-(1 → 4) → (1 → 4)-glucantransferase activity by using HPLC with a pulsed amperometric detector, 179

C-Glycosyl amino acid analogue of O-(β-Dxylopyranosyl)serine, synthesis of, 197

Hyaluronic acid esters and salts, NMR studies of hydrogen-bond patterns and conformational behaviour for solutions in methyl sulfoxide, 1

Hydrogen-bond patterns and conformational behaviour of salts and esters of hyaluronic acid in solution in methyl sulfoxide, NMR studies of, 1

Hydroxyl → halogen exchange reaction in the presence of triphenylphosphine, N-bromosuccinide, and N,N-dimethylformamide, the mechanism of the, 327

Inhibitors of neural cell division, synthesis of oligosaccharide, 185

D-myo-Inositol 1,4,5-triphosphate affinity ligands, synthesis of, 63

Insertion reactions of some aromatic diazo compound complexes with cyclomaltoheptaose, regioselectivity of the, 289

Intramolecular hydrogen bonds in methyl β-cellobioside, a ¹H-NMR and MD study, 41

Kinetics and thermal degradation of the fructose-methionine Amadori intermediates. GC-MS/SPECMA data bank identification of volatile aroma compounds, 15

Kojibiose, nigerose, and maltose, conformational analysis of the anomeric forms of using MM3, 223

Maltose, kojibiose, and nigerose, conformational analysis of the anomeric forms of using MM3, 223

D-Mannitol, 2,5-anhydro-O-(1,2-ethanediyl)-, a locked ⁴T₃ furanose conformer: synthesis and X-ray crystal and solution structures of, 213

α-D-Mannopyranosyl and α-D-mannopyranosyl-(1 → 2)-α-D-mannopyranosyl linked to Lserine and L-threonine, synthesis and conformational and NMR studies of, 299

(Methoxycarbonyl)alkyl and 9-(methoxycarbonyl)-3,6-dioxanonyl glycosides for use in preparation of carbohydrate-protein conjugates, synthesis of ω -, 117

Methyl β-cellobioside, a ¹H-NMR and MD study of intramolecular hydrogen bonds in, 41

MM3, conformational analysis of the anomeric forms of kojibiose, nigerose, and maltose using, 223

Mucin-type core unit, synthesis of neoglycolipids containing a, C11

Mycosamine (3-amino-3,6-dideoxy-D-mannose), a precursor to the β -pyranosides of, 79

Neoglycolipids containing a mucin-type core unit, synthesis, C11

- Neural cell division, synthesis of oligosaccharide inhibitors of, 185
- Nigerose, kojibiose, and maltose, conformational analysis of the anomeric forms of using MM3, 223
- NMR and MD study of intramolecular hydrogen bonds in methyl B-cellobioside. ¹H-, 41
- NMR spectroscopy and molecular dynamics calculations, conformational behaviour of the cardiac glycoside digoxin as indicated by, 201
- NMR studies of solutions of hyaluronic acid esters and salts in methyl sulfoxide, comparison of hydrogen-bond patterns and conformational behaviour, 1
- Oligosaccharide inhibitors of neural cell division, synthesis of, 185
- Pivaloylated p-glucopyranoses, syntheses of partially, 107
- Polyamides, preparation of derivatives of 6amino-6-deoxy-p-gluconic acid that are precursors for the synthesis of, 191
- Precursor to the β-pyranosides of 3-amino-3,6dideoxy-p-mannose (mycosamine), 79
- Proteoglycan from the pilose antler of Cervus nippon Temminck, structure of the complement-activating, 361
- Regioselectivity of the insertion of some aromatic diazo compound complexes with cyclomaltoheptaose, 289
- L-Serine and L-threonine, synthesis and conformational and NMR studies of α-D-mannopyranosyl and α-D-mannopyranosyl-(1 → 2)-α-D-mannopyranosyl linked to, 299
- Sialyl dimeric Lewis^x heptasaccharide, combined chemical-enzymic synthesis, C7

- Sialyl X ceramide consisting of a pentasaccharide recognized by the selectin family, stereocontrolled synthesis of, C1
- Structures, X-ray crystal and solution, and synthesis of 2,5-anhydro-3,4-O-(1,2-ethanediyl)p-mannitol, a locked ⁴T₃ furanose conformer, 213
- Sugars with push-pull functionality, syntheses of branched-chain, 319
- Sulfated alkyl glycosides, synthesis and properties, 245
- Syntheses of branched-chain sugars with pushpull functionality, 319
- Synthesis and conformational and NMR studies of α-D-mannopyranosyl and α-D-mannopyranosyl-(1 → 2)-α-D-mannopyranosyl linked to L-serine and L-threonine, 299
- Synthesis and properties of sulfated alkyl glucosides, 245
- Synthesis of ω-(methoxycarbonyl)alkyl and 9-(methoxycarbonyl)-3,6-dioxanonyl glycosides for use in preparation of carbohydrate-protein conjugates, 117
- Synthesis of sialyl X ceramide consisting of a pentasaccharide recognized by the selectin family, stereocontrolled, C1
- Thioglycosides of deoxy-N-acetylneuraminic acids for use as glycosyl donors, synthesis of the methyl, 257
- Triphenylphosphine, N-bromosuccinimide, and N,N-dimethylformamide, the mechanism of the hydroxyl → halogen exchange reaction in the presence of, 327
- Vilsmeier-type reagent, application in carbohydrate chemistry of a new, 327 VIM-2 hexasaccharide determinant, combined chemicalenzymic synthesis, C7